98-11CIP1RCE PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent of: Steven D. Lacy et al.

Patent No.: 7,199,809 B1 Issued: April 3, 2007 Confirmation No.: 2647

For: GRAPHIC DESIGN OF COMBINATORIAL MATERIAL LIBRARIES

December 4, 2009

REQUEST FOR EXPEDITED ISSUANCE OF CERTIFICATE OF CORRECTION UNDER 37 CFR 1.322

TO THE COMMISSIONER FOR PATENTS,

for designing a library of materials;

SIR:

On studying the above-identified patent, the following errors, apparently made by the Patent and Trademark Office, were found (these errors are also noted on the attached form PTO/SB/44):

Beginning at Column 29, Line 15 through Column 36, Line 65, Claims 1 through 78 should be replaced with the following 16 claims:

 A computer-implemented method for generating a library design for a combinatorial library of materials, comprising: providing a graphical user interface including a workspace

defining one or more sources and one or more destinations, each source being electronic data representing a chemical or mixture of chemicals to be used in preparing the combinatorial library and each destination being electronic data representing an arrangement of cells;

displaying a visual representation of one or more of the one or more defined destinations in the workspace of the graphical user interface, each destination representation including a

representation of one or more destination areas, each destination area including one or more cells in the corresponding arrangement:

receiving user input associating each of the one or more sources with one or more of the destination areas;

receiving user input specifying a plurality of equations and associating each of the plurality of equations with one or more of the one or more destination areas;

solving the plurality of equations to calculate one or more amounts of one or more first chemicals or mixtures of chemicals represented by the one or more defined sources to be assigned to one or more cells in the one or more arrangements represented by the one or more defined destinations, the one or more amounts of the one or more first chemicals or mixtures of chemicals to be assigned to a given cell in the one or more arrangements being calculated according to a set of equations comprising a plurality of the equations, the equations in the set of equations being associated with the area or areas that include the cell, the one or more first chemicals or mixtures of chemicals to be assigned to the given cell being determined by the one or more sources associated with the area or areas that include the cell; and

modifying the visual representation of the one or more defined destinations to include a visual indication of the one or more calculated amounts.

- The method of claim 1, further comprising: generating an error indicator signal if the plurality of equations cannot be solved for each cell in the one or more arrangements.
- 3. The method of claim 1, wherein at least one of the plurality of equations is selected from the group consisting of: a ratio equation defining an amount of one of the first chemicals or mixtures of chemicals to be assigned to a cell as a

function of an amount of another chemical or mixture of chemicals to be assigned to the cell:

a volume equation defining an amount of one of the first chemicals or mixtures of chemicals to be assigned to a cell as a function of a total volume of a plurality of chemicals or mixtures of chemicals to be assigned to the cell; and

a mass equation defining an amount of one of the first chemicals or mixtures of chemicals to be assigned to a cell as a function of a total mass of a plurality of chemicals or mixtures of chemicals to be assigned to the cell.

- 4. The method of claim 1, wherein solving the plurality of equations comprises using matrix algebra techniques to solve the plurality of equations.
 - 5. The method of claim 1, further comprising:

receiving an input defining a gradient mapping, the gradient mapping being electronic data defining a distribution pattern for distributing a second chemical or mixture of chemicals to cells in the one or more arrangements, the distribution pattern including a minimum and a maximum amount of the second chemical or mixture of chemicals to be assigned to any of a plurality of cells of the one or more arrangements and a gradient to be applied between the minimum and maximum amounts of the second chemical or mixture of chemicals across the plurality of cells; and

using the second mapping to calculate amounts of the second chemical or mixture of chemicals to be deposited in each of the plurality of cells;

wherein modifying the visual representation of the one or more defined destinations comprises modifying the visual representation to include a visual indication of the calculated amounts of the first and second chemicals or mixtures of chemicals.

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6. A computer program product on a computer-readable medium for generating a library design for a combinatorial library of materials, the computer program product comprising instructions operable to cause a programmable processor to:

provide a graphical user interface including a workspace for designing a library of materials;

define a set of one or more sources and one or more destinations, each source being electronic data representing a chemical or mixture of chemicals to be used in preparing the combinatorial library and each destination being electronic data representing an arrangement of cells;

display a visual representation of one or more of the one or more defined destinations in the workspace of the graphical user interface, each destination representation including a representation of one or more destination areas, each destination area including one or more cells in the corresponding arrangement;

receive user input associating each of the one or more sources with one or more of the destination areas;

receive user input specifying a plurality of equations and associating each of the plurality of equations with one or more of the destination areas:

solve the plurality of equations to calculate one or more amounts of one or more first chemicals or mixtures of chemicals represented by the one or more defined sources to be assigned to one or more cells in the one or more arrangements represented by the one or more defined destinations, the one or more amounts of the one or more first chemicals or mixtures of chemicals to be assigned to a given cell in the one or more arrangements being calculated according to a set of equations comprising a plurality of the equations, the equations in the set of equations being associated with the area or areas that include the cell, the one or more first chemicals or mixtures of chemicals to be assigned to the given cell being determined by the one or more sources

associated with the area or areas that include the cell; and modify the visual representation of the one or more defined destinations to include a visual indication of the one or more calculated amounts.

7. The computer program product of claim 6, further comprising instructions operable to:

generate an error indicator signal if the plurality of equations cannot be solved for each cell in the one or more arrangements.

- 8. The computer program product of claim 6, wherein at least one of the plurality of equations is selected from the group consisting of:
- a ratio equation defining an amount of one of the first chemicals or mixtures of chemicals to be assigned to a cell as a function of an amount of another chemical or mixture of chemicals to be assigned to the cell;
- a volume equation defining an amount of one of the first chemicals or mixtures of chemicals to be assigned to a cell as a function of a total volume of a plurality of chemicals or mixtures of chemicals to be assigned to the cell; and
- a mass equation defining an amount of one of the first chemicals or mixtures of chemicals to be assigned to a cell as a function of a total mass of a plurality of chemicals or mixtures of chemicals to be assigned to the cell.
- 9. The computer program product of claim 6, wherein the instructions operable to cause a programmable processor to solve the plurality of equations comprise instructions to use matrix algebra techniques to solve the plurality of equations.

10. The computer program product of claim 6, further comprising instructions operable to:

receive an input defining a gradient mapping, the gradient mapping being electronic data defining a distribution pattern for distributing a second chemical or mixture of chemicals to cells in the one or more arrangements, the distribution pattern including a minimum and a maximum amount of the second chemical or mixture of chemicals to be assigned to any of a plurality of cells of the one or more arrangements and a gradient to be applied between the minimum and maximum amounts of the second chemical or mixture of chemicals across the plurality of cells; and

use the second mapping to calculate amounts of the second chemical or mixture of chemicals to be deposited in each of the plurality of cells;

wherein the instructions operable to cause a programmable processor to modify the visual representation of the one or more defined destinations include instructions operable to cause a programmable processor to modify the visual representation to include a visual indication of the calculated amounts of the first and second chemicals or mixtures of chemicals.

- 11. The method of claim 1, further comprising: receiving user input dividing one or more of the one or more destination representations to define the destination areas.
 - 12. The method of claim 1, further comprising:

in response to the user input specifying and associating the equations, modifying the visual representation of the one or more defined destinations to include a visual indication of the equations associated with the one or more destination areas.

13. The method of claim 1, wherein:

defining the one or more sources comprises associating one or more of the chemicals or mixtures of chemicals with a type representing a class of chemicals to be used in preparing the combinatorial library;

receiving user input specifying a plurality of equations comprises receiving user input specifying one or more of the plurality of equations as a function of the type; and

solving the equations comprises solving the equations specified as a function of the type for a given destination area by substituting the corresponding associated chemical or chemicals associated for the type.

14. The computer program product of claim 6, further comprising instructions operable to cause a programmable processor to:

receive user input dividing one or more of the destination representations to define the destination areas.

15. The computer program product of claim 6, further comprising instructions operable to cause a programmable processor to:

modify the visual representation of the one or more defined destinations in response to the user input specifying and associating the equations to include a visual indication of the equations associated with the one or more destination areas.

16. The computer program product of claim 6, wherein: the instructions operable to cause a programmable processor

the instructions operable to cause a programmable processor to define the one or more sources comprise instructions operable to cause a programmable processor to associate one or more of the chemicals or mixtures of chemicals with a type representing a class of chemicals to be used in preparing the combinatorial library;

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the instructions operable to cause a programmable processor to receive user input specifying a plurality of equations comprise instructions operable to cause a programmable processor to receive user input specifying one or more of the plurality of equations as a function of the type; and

instructions operable to cause a programmable processor to solve the equations comprise instructions operable to cause a programmable processor to solve the equations specified as a function of the type for a given destination area by substituting the corresponding associated chemical or chemicals associated for the type.

REMARKS

In accordance with 37 CFR 1.322, a copy of Amendment G, dated October 11, 2006, a copy of the Notice of Allowance dated November 17, 2006, a copy of the Issue Fee Transmittal dated February 13, 2007, and a copy of the email received from Marietta A. Joyce, Lead LIE with the Certificates of Correction Branch providing an Index of Claims dated October 27, 2009, are attached.

The correct number of allowed claims was confirmed by Marietta A. Joyce, Lead LIE with the Certificates of Correction Branch who received the information from Examiner Jason M. Sims on October 27, 2009.

We respectfully request that a certificate of correction be issued.

Respectfully submitted,

/Michael E. Godar/

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MEG/clp *Enclosures

CERTIFICATE OF TRANSMISSION BY FACSIMILE

I hereby certify that this correspondence is being transmitted by facsimile to the Patent and Trademark Office at facsimile number (571) 273-8300 addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on 10-11-06

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Lacy et al.

Confirmation No. 2647

Serial No.: Filed:

09/420,334 10/18/1999

Group Art Unit: 1631

For:

Graphic Design of Combinatorial Material Libraries

Examiner: Jason M. Sims

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

AMENDMENT G

Sir:

In response to the Final Office Action dated August 28, 2006, please amend the application as follows. Amendments to the claims are requested as set forth below in the section entitled "Amendments to the Claims". Remarks relating to such amendments and responsive to the aforementioned Office action follow thereafter in the section entitled "Remarks".

AMENDMENTS TO THE CLAIMS

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This listing of claims replaces all prior versions and listings of claims in the application:

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Please cancel claim 1 without prejudice.

Claim 2. Cancelled.

Please cancel claims 3-9 without prejudice.

Claims 10-11. Cancelled.

Please cancel claims 12-14 without prejudice.

Claims 15-18. Cancelled.

19. (Previously presented) A computer-implemented method for generating a library design for a combinatorial library of materials, comprising:

providing a graphical user interface including a workspace for designing a library of materials:

defining one or more sources and one or more destinations, each source being electronic data representing a chemical or mixture of chemicals to be used in preparing the combinatorial library and each destination being electronic data representing an arrangement of cells:

displaying a visual representation of one or more of the one or more defined destinations in the workspace of the graphical user interface, each destination representation including a representation of one or more destination areas, each destination area including one or more cells in the corresponding arrangement;

receiving user input associating each of the one or more sources with one or more of the destination areas:

receiving user input specifying a plurality of equations and associating each of the plurality of equations with one or more of the one or more destination areas;

solving the plurality of equations to calculate one or more amounts of one or more first chemicals or mixtures of chemicals represented by the one or more defined sources to be assigned to one or more cells in the one or more arrangements represented by the one or more defined destinations, the one or more amounts of the one or more first chemicals or mixtures of chemicals to be assigned to a given cell in the one or more arrangements being calculated according to a set of equations comprising a plurality of the equations, the equations in the set of equations being associated with the area or areas that include the cell, the one or more first chemicals or mixtures of chemicals to be assigned to the given cell being determined by the one or more sources associated with the area or areas that include the cell being determined by the one or more sources associated with the area or areas that include the cell ind

modifying the visual representation of the one or more defined destinations to include a visual indication of the one or more calculated amounts.

Claims 20-22. Cancelled.

- 23. (Previously presented) The method of claim 19, further comprising: generating an error indicator signal if the plurality of equations cannot be solved for each cell in the one or more arrangements.
- 24. (Previously presented) The method of claim 19, wherein at least one of the plurality of equations is selected from the group consisting of:
- a ratio equation defining an amount of one of the first chemicals or mixtures of chemicals to be assigned to a cell as a function of an amount of another chemical or mixture of chemicals to be assigned to the cell:
- a volume equation defining an amount of one of the first chemicals or mixtures of chemicals to be assigned to a cell as a function of a total volume of a plurality of chemicals or mixtures of chemicals to be assigned to the cell; and
- a mass equation defining an amount of one of the first chemicals or mixtures of chemicals to be assigned to a cell as a function of a total mass of a plurality of chemicals

or mixtures of chemicals to be assigned to the cell.

Claims 25-26. Cancelled.

27. (Previously presented) The method of claim 19, wherein solving the plurality of equations comprises using matrix algebra techniques to solve the plurality of equations.

Claim 28. Cancelled.

29. (Previously presented) The method of claim 19, further comprising:

receiving an input defining a gradient mapping, the gradient mapping being electronic data defining a distribution pattern for distributing a second chemical or mixture of chemicals to cells in the one or more arrangements, the distribution pattern including a minimum and a maximum amount of the second chemical or mixture of chemicals to be assigned to any of a plurality of cells of the one or more arrangements and a gradient to be applied between the minimum and maximum amounts of the second chemical or mixture of chemicals across the plurality of cells; and

using the second mapping to calculate amounts of the second chemical or mixture of chemicals to be deposited in each of the plurality of cells;

wherein modifying the visual representation of the one or more defined destinations comprises modifying the visual representation to include a visual indication of the calculated amounts of the first and second chemicals or mixtures of chemicals.

Claims 30-36. Cancelled.

Please cancel claim 37 without prejudice.

38. Cancelled.

Please cancel claims 39-45 without prejudice.

Claims 46-47 Cancelled

Please cancel claims 48-50 without prejudice.

Claims 51-54. Cancelled.

55. (Previously presented) A computer program product on a computer-readable medium for generating a library design for a combinatorial library of materials, the computer program product comprising instructions operable to cause a programmable processor to:

provide a graphical user interface including a workspace for designing a library of materials:

define a set of one or more sources and one or more destinations, each source being electronic data representing a chemical or mixture of chemicals to be used in preparing the combinatorial library and each destination being electronic data representing an arrangement of cells;

display a visual representation of one or more of the one or more defined destinations in the workspace of the graphical user interface, each destination representation including a representation of one or more destination areas, each destination area including one or more cells in the corresponding arrangement;

receive user input associating each of the one or more sources with one or more of the destination areas;

receive user input specifying a plurality of equations and associating each of the plurality of equations with one or more of the destination areas;

solve the plurality of equations to calculate one or more amounts of one or more first chemicals or mixtures of chemicals represented by the one or more defined sources to be assigned to one or more cells in the one or more arrangements represented by the one or more defined destinations, the one or more amounts of the one or more first chemicals or mixtures of chemicals to be assigned to a given cell in the one or more arrangements being calculated according to a set of equations comprising a plurality of the equations, the equations in the set of equations being associated with the area or areas

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that include the cell, the one or more first chemicals or mixtures of chemicals to be assigned to the given cell being determined by the one or more sources associated with the area or areas that include the cell; and

modify the visual representation of the one or more defined destinations to include a visual indication of the one or more calculated amounts.

Claims 56-58. Cancelled.

 (Previously presented) The computer program product of claim 55, further comprising instructions operable to:

generate an error indicator signal if the plurality of equations cannot be solved for each cell in the one or more arrangements.

- 60. (Previously presented) The computer program product of claim 55, wherein at least one of the plurality of equations is selected from the group consisting of:
- a ratio equation defining an amount of one of the first chemicals or mixtures of chemicals to be assigned to a cell as a function of an amount of another chemical or mixture of chemicals to be assigned to the cell;
- a volume equation defining an amount of one of the first chemicals or mixtures of chemicals to be assigned to a cell as a function of a total volume of a plurality of chemicals or mixtures of chemicals to be assigned to the cell; and

a mass equation defining an amount of one of the first chemicals or mixtures of chemicals to be assigned to a cell as a function of a total mass of a plurality of chemicals or mixtures of chemicals to be assigned to the cell.

Claims 61-62 Cancelled.

63. (Previously presented) The computer program product of claim 55, wherein the instructions operable to cause a programmable processor to solve the plurality of equations comprise instructions to use matrix algebra techniques to solve the plurality of equations.

Claim 64 Cancelled

65. (Previously presented) The computer program product of claim 55, further comprising instructions operable to:

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receive an input defining a gradient mapping, the gradient mapping being electronic data defining a distribution pattern for distributing a second chemical or mixture of chemicals to cells in the one or more arrangements, the distribution pattern including a minimum and a maximum amount of the second chemical or mixture of chemicals to be assigned to any of a plurality of cells of the one or more arrangements and a gradient to be applied between the minimum and maximum amounts of the second chemical or mixture of chemicals across the plurality of cells; and

use the second mapping to calculate amounts of the second chemical or mixture of chemicals to be deposited in each of the plurality of cells;

wherein the instructions operable to cause a programmable processor to modify the visual representation of the one or more defined destinations include instructions operable to cause a programmable processor to modify the visual representation to include a visual indication of the calculated amounts of the first and second chemicals or mixtures of chemicals.

Claims 66-91. Cancelled.

 (Previously presented) The method of claim 19, further comprising: receiving user input dividing one or more of the one or more destination representations to define the destination areas.

Claim 93. Cancelled.

94. (Previously presented) The method of claim 19, further comprising: in response to the user input specifying and associating the equations, modifying the visual representation of the one or more defined destinations to include a visual

indication of the equations associated with the one or more destination areas.

95. (Previously presented) The method of claim 19, wherein:

defining the one or more sources comprises associating one or more of the chemicals or mixtures of chemicals with a type representing a class of chemicals to be used in preparing the combinatorial library:

receiving user input specifying a plurality of equations comprises receiving user input specifying one or more of the plurality of equations as a function of the type; and

solving the equations comprises solving the equations specified as a function of the type for a given destination area by substituting the corresponding associated chemical or chemicals associated for the type.

Claim 96 Cancelled

97. (Previously presented) The computer program product of claim 55, further comprising instructions operable to cause a programmable processor to:

receive user input dividing one or more of the destination representations to define the destination areas.

Claim 98. Cancelled.

99. (Previously presented) The computer program product of claim 55, further comprising instructions operable to cause a programmable processor to:

modify the visual representation of the one or more defined destinations in response to the user input specifying and associating the equations to include a visual indication of the equations associated with the one or more destination areas.

100. (Previously presented) The computer program product of claim 55, wherein: the instructions operable to cause a programmable processor to define the one or more sources comprise instructions operable to cause a programmable processor to

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associate one or more of the chemicals or mixtures of chemicals with a type representing a class of chemicals to be used in preparing the combinatorial library;

the instructions operable to cause a programmable processor to receive user input specifying a plurality of equations comprise instructions operable to cause a programmable processor to receive user input specifying one or more of the plurality of equations as a function of the type; and

instructions operable to cause a programmable processor to solve the equations comprise instructions operable to cause a programmable processor to solving the equations specified as a function of the type for a given destination area by substituting the corresponding associated chemical or chemicals associated for the type.

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REMARKS

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Claims 1, 3-9, 12-14, 19, 23-24, 27, 29, 37, 39-45, 48-50, 55, 59-60, 63, 65, 92, 94-95, 97, and 99-100 were pending. Claims 1, 3-9, 12-14, 37, 39-45, and 48-50 are cancelled without prejudice by this Amendment. No new matter has been added. The applicant respectfully requests reconsideration of the pending claims in light of the above amendments and the following remarks

1. Interview Summary

The applicant thanks Examiners Jason Sims and Carolyn Smith for extending the courtesy of a telephonic interview on October 5, 2006 to address the rejections under section 112. During the interview Tim Porter, the applicant's undersigned representative, suggested that the pending claim language itself addressed the alleged indefiniteness identified in the Office action – specifically, that the statement that the chemicals or mixtures of chemicals to be assigned to a given cell are "determined by the one or more sources" is expressly modified by the immediately following phrase "associated with the area or areas that include the cell", which establishes that it is the association between sources and areas that determines which chemicals or mixtures are assigned to which cells, and not merely the sources or even the solving of equations that does so. This is discussed in more detail below.

2. Rejections under Section 112

Claims 19, 23-24, 27, and 29 were rejected under 35 U.S.C. § 112 as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claims 23-24, 27, 29, 59-60, 63, 65, 92, 94-95, 97 and 99-100 were rejected as being dependent from a rejected claim. In particular, the Office action states that claims 19 and 55 are indefinite in their statement that "the chemicals to be assigned to the given cell are 'determined by the one or more sources'". Based on this statement, the applicant assumes that the rejection was intended to encompass claim 55 as well. As noted above, the applicant respectfully disagrees with the rejection.

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Claim 19 is directed to a computer-implemented method for generating a library design for a combinatorial library of materials. In relevant part, the claim includes the steps of "receiving user input associating each of the one or more sources with one or more of the destination areas," "receiving user input specifying a plurality of equations and associating each of the plurality of equations with one or more of the one or more destination areas," and "solving the plurality of equations to calculate one or more amounts of one or more first chemicals or mixtures of chemicals represented by the one or more defined sources to be assigned to one or more cells in the one or more arrangements represented by the one or more defined destinations." According to the claim, the amounts of chemicals or mixtures to be assigned to a given cell are calculated according to a set of equations associated with the area or areas that include the cell, while the identity of the chemicals or mixtures to be assigned to the given cell is "determined by the one or more sources associated with the area or areas that include the cell" (emphasis added).

The applicant submits that the italicized passage makes it clear that it is not merely the sources that determine which chemicals or mixtures are assigned to which cells in the claimed method. Rather, the chemicals or mixtures that will be assigned to a given cell are determined based on which sources have been associated with the destination area or areas that include the cell.

This is described further in the specification at, for example, page 20, lines 10-20, where it is stated that the user "may assign a component (i.e., a source or sources, including a chemical or chemicals) to a header", which "causes design module 130 to assign the component represented by source ion 731 to all cells assigned to header 720 for use in equations governing those cells" (see p. 20, lines 10-11, 13-15). The specification further states that "the user may assign components (sources or chemicals) to one or more individual cells or groups of cells by dragging the selected component and dropping it into the desired cell or cells" (id., lines 15-17).

The applicant submits that one skilled in the art would understand that the chemicals or mixtures to be assigned to a given cell in claim 19 are those that are represented by the sources that were associated with the given cell in the first "receiving user input" step, and that the claim is therefore not indefinite under Section 112. The

applicant therefore respectfully requests that the rejection of claim 19 under Section 112, second paragraph, be withdrawn.

Claim 55 is a computer program product claim that includes limitations that are directly analogous to those of claim 19. Claims 23-24, 27, 29, 59-60, 63, 65, 92, 94-95, 97, and 99-100 are dependent claims based directly or indirectly on claims 19 or 55. The applicant submits that these claims are not indefinite for the reasons discussed above in the context of claim 19, and requests that the rejection of these claims under section 112 be withdrawn.

3. Rejections under Section 102

Claims 1, 3-7, 12-14, 37, 39-43, and 48-50 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,165,778 ("Kedar"). Claims 1, 3-7, 12-14, 37, 39-43, and 48-50 have been cancelled without prejudice by this Amendment, rendering the rejection moot. The applicant therefore respectfully requests that the rejection under Section 102(e) be withdrawn.

4. Rejections under Section 103

Claims 1, 3-9, and 12-14 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,044,212 ("Flavin") in view of U.S. Patent No. 6,044,617 ("Schultz") and U.S. Patent No. 6,295,514 ("Agrafiotis"). Claims 1, 3-9, and 12-14 have been cancelled without prejudice by this Amendment, rendering the rejection moot. The applicant therefore respectfully requests that the rejection under Section 103(a) be withdrawn.

5. Rejections for Obviousness-Type Double Patenting

Claims 1, 3-9, 12-14, 19, 21, 23, 29, 37, 39-45, 48-50, 55, 91, 97, and 99-100 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3-7, 9-12, 27-31, 33-36, 55-63, 65-74 and 76-104 of copending Application No. 09/174,856. Claims 1, 3-9, 12-14, 37, 39-45, and 48-50 are cancelled without prejudice by this Amendment, rendering the rejection moot as to these claims. As for the remaining claims, a terminal disclaimer is being submitted with this

Amendment. The applicant therefore requests that the rejection for obviousness-type double patenting be withdrawn.

6. Conclusion

The applicant submits that all remaining claims are now in condition for allowance. No fees are believed to be due at this time. Please charge any fees or credits to Deposit Account 50-0496.

Respectfully submitted,

Date: 10/11/06

Timothy A. Porter Reg. No. 41,258 Attorney for Applicant

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UNITED STATES DEPARTMENT OF COMMER United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

11/17/2006 SYMYX TECHNOLOGIES INC.

LEGAL DEPARTMENT 3100 CENTRAL EXPRESS SANTA CLARA, CA 9505 I

EXAMINER SIMS, JASON M ART LINIT PAPER NUMBER 1631

DATE MAILED: 11/17/2006

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/420 334	10/18/1999	STEVEN D. LACY	98-LICIPIRCE	2647

TITLE OF INVENTION: GRAPHIC DESIGN OF COMBINATORIAL MATERIAL LIBRARIES

Г	APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
	nonprovisional	YES	\$700	02	\$0	\$700	02/20/2007

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B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks I through 5 should be completed where

indicated unless correct maintenance fee notifica	ed below or directed otl	herwise in Block 1, by (a) specifying a new corn	espondence address	; and/or	(b) indicating a sepa	rate "FEE ADDRESS" for
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SANTA CLAR	A, CA 95051						(Depositor's name)
							(Signature)
			L				(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTO	R	ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
09/420,334	10/18/1999		STEVEN D. LACY		9	8-11CIPIRCE	2647
TITLE OF INVENTION	: GRAPHIC DESIGN C	OF COMBINATORIAL N					
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$0	S0		\$700	02/20/2007
EXAM	IINER	ART UNIT	CLASS-SUBCLASS				
SIMS, J		1631	702-019000				
I. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address (or Change of Correspondence Address form FT0/SB1/22) attached. "Fee Address" indication (or "Fee Address" Indication form FT0/SB4/2; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			2. For printing on the patent front page, list (1) the names of up to 3 registered patent attomeys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is sitest, no name with be printed.				
PLEASE NOTE: Un recordation as set for (A) NAME OF ASSI	less an assignee is ident th in 37 CFR 3.11. Comp GNEE		data will appear on the YT a substitute for filing at (B) RESIDENCE: (CIT	patent. If an assign assignment. Y and STATE OR (COUNT	'RY)	ocument has been filed for
Please check the appropr	riate assignee category or	r categories (will not be p	rinted on the patent):	Individual C	orporati	on or other private gro	oup entity Government
4a. The following fee(s) are submitted: Issue Fee Publication Fee (No small entity discount permitted) Advance Order - # of Copies			b. Payment of Fee(s): (Ple A check is enclosed. Payment by credit ci The Director is heret overpayment, to Dep	ard. Form PTO-2031	3 is atta	ched.	
5. Change in Entity Sta	tus (from status indicate as SMALL ENTITY state		☐ b. Applicant is no lo	CMA	I I END	DITY 6 27.61	ED 1.27(-)/2)
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interest as shown by the	records of the United Sta	ites Patent and Trademark	c Office.				
Authorized Signature				Date			
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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandris, Virginia 22313-1450

APPLICATION NO.	TION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/420,334	34 10/18/1999		STEVEN D. LACY	98-11CIPIRCE	2647
22905	7590	11/17/2006		EXAM	INER
SYMYX TEC	HNOLOG	IES INC		SIMS, JA	ISON M
LEGAL DEPA				ART UNIT	PAPER NUMBER
3100 CENTRA SANTA CLAR				1631 DATE MAIL ED: 11/17/200	6

Determination of Patent Term Extension under 35 U.S.C. 154 (b)

(application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)	
	09/420.334	LACY ET AL.	
Notice of Allowability	Examiner	Art Unit	
	Jason M. Sims	1631	
- The MAILING DATE of this communication applications applications being allowable, PROSECUTION ON THE MERITS 18 erewith (or previously mailed), a Notice of Allowance (PTOL-85 OTTICE OF ALLOWABILITY IS NOTA GRANT OF PATENT If the Office or upon petition by the applicant. See 37 CFR 1.31	S (OR REMAINS) CLOSED in i) or other appropriate commu RIGHTS. This application is s	this application. If not include inication will be mailed in due	ded course. THIS
☐ This communication is responsive to the amendment filed	1 10/12/2006.		
. X The allowed claim(s) is/are 19,23,24,27,29,55,59,60,63,6	5,92,94,95,97,99 and 100.		
 . Acknowledgment is made of a claim for foreign priority to a)	ve been received.		
Copies of the certified copies of the priority d	ocuments have been received	d in this national stage applic	ation from the
International Bureau (PCT Rule 17.2(a)).			
* Certified copies not received:			
Applicant has THREE MONTHS FROM THE "MAILING DATE noted below. Failure to timely comply will result in ABANDON THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		a reply complying with the re	equirements
. A SUBSTITUTE OATH OR DECLARATION must be submiNFORMAL PATENT APPLICATION (PTO-152) which gives			NOTICE OF
CORRECTED DRAWINGS (as "replacement sheets") mu	ust be submitted.		
(a) ☐ including changes required by the Notice of Draftsper	rson's Patent Drawing Review	v (PTO-948) attached	
1) 🗌 hereto or 2) 🔲 to Paper No./Mail Date	-		
(b) including changes required by the attached Examine Paper No./Mail Date	r's Amendment / Comment or	in the Office action of	
Identifying Indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in	1.84(c)) should be written on the header according to 37 CF	ne drawings in the front (not the R 1.121(d).	e back) of
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. Notice of References Cited (PTO-892)	5. Notice of In	formal Patent Application	
. Notice of Draftperson's Patent Drawing Review (PTO-948)		ummary (PTO-413), Mail Date	
. ☐ Information Disclosure Statements (PTO/SB/08),		Amendment/Comment	
Paper No./Mail Date	8. Examiner's	Statement of Reasons for Al	lowance
. Examiner's Comment Regarding Requirement for Deposit			
of Biological Material	9.		

Application/Control Number: 09/420,334

Art Unit: 1631

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Tim Porter on 11/9/2006

The application has been amended as follows:

In claim 100, line 11, the term "solving" has been deleted and the term - - solve - has been substituted therefor

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Sims, whose telephone number is (571)-272-7540.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Andrew Wang can be reached via telephone (571)-272-0811.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the Central PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 CFR § 1.6(d)). The Central PTO Fax Center number is (571)-273-8300.

Application/Control Number: 09/420,334

Art Unit: 1631

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

// Jason Sims //

Jols. Bur 13 Amenter 2006

JOHN S. BRUSCA, PH.C PRIMARY EXAMINER

PART B - FEE(S) TRANSMITTAL

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SANTA CLAR	A, CA 93031			Suzanne Shad	ley	(Depositor's name)	
				Surant	Shadles	(Signature)	
				February 13, 2	007	(Date)	
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/420,334	10/18/1999		STEVEN D. LACY		98-11CIP1RCE	2647	
TITLE OF INVENTION	: GRAPHIC DESIGN O	F COMBINATORIAL I	MATERIAL LIBRARIES				
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Symyx Techno	ologies, Inc.		Santa Clara, Cali	fornia			
Please check the appropri	iate assignee category or	categorics (will not be p	rinted on the patent):	Individual Cor	poration or other private gro	up entity 🔲 Government	
4a. The following fee(s):	are submitted:	4	b. Payment of Fee(s); (Plea	se first reapply any	y previously paid issue fee s	shown above)	
Issue Fee			A check is enclosed.				
	to small entity discount p	ermitted)	☐ Psyment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fec(s), any deficiency, or credit any overpayment, to Deposit Account Number _50_0496 (enclose an extra copy of this form).				
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Authorized Signature	Gnald	Thums		Date Febru	uary 13, 2007		
	Ronald A. Krasn			Registration No			
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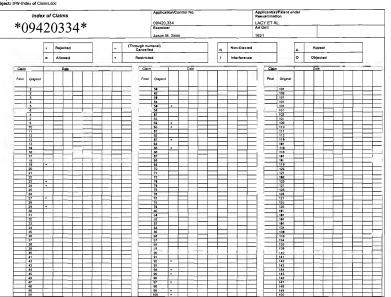
Christie Paddock

From: Joyce, Marietta [Marietta.Joyce@USPTO.GOV]

Sent: Tuesday, October 27, 2009 10:39 AM

To: Christie Paddock Subject: FW: IFW-Index of Claims doc

From: Sims, Jason M. (AU1631) Sent: Tuesday, October 27, 2009 11:24 AM To: Joyce, Marietta Subject: IFW-Index of Claims.doc



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Part of Paper No. 20061109